

WHAT IS CLAIMED IS:

1. A method for making a rock laminate, the method comprising:

5 providing a rock having an exposed surface;

applying a polymer to at least a portion of the exposed surface of the rock such that a portion of the exposed surface is bonded to the polymer; and

10 lifting a portion of the polymer, along with the corresponding bonded portion of the exposed surface, away from the rock to produce the rock laminate and to expose a new surface of the rock.

15 2. The method of Claim 1, further comprising:

providing the rock having the new surface;

20 applying a polymer to at least a portion of the new surface of the rock such that a portion of the new surface is bonded to the polymer; and

lifting a portion of the polymer, along with the corresponding bonded portion of the new surface, away from the rock to produce a second rock laminate and to expose a second new surface of the rock.

25 3. The method of Claim 1, wherein the rock laminate is flexible.

4. The method of Claim 3, wherein lifting a portion of the polymer includes rolling the rock laminate away from the rock to expose the new surface.
- 5 5. The method of Claim 3, further comprising:
flexing the rock laminate until a desired shape is
acquired.
6. The method of Claim 3, further comprising:
10 molding the rock laminate around an object.
7. The method of Claim 3, further comprising:
heating the rock laminate until the rock laminate
exhibits a desired flexibility.
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8. The method of Claim 1, further comprising:
curing the polymer after application of the polymer
to the exposed surface of the rock.
- 20 9. The method of Claim 8, wherein said step of curing
occurs after said step of lifting a portion of the
polymer, along with the corresponding bonded portion
of the exposed surface, away from the rock.
- 25 10. The method of Claim 8, further comprising:
increasing the rate of the curing of the polymer via
application of a curing technique.
11. The method of Claim 1, wherein applying a polymer to
30 at least a portion of the exposed surface includes
use of a mold.

12. The method of Claim 1, further comprising:
applying an additive to the polymer.

5 13. The method of Claim 1, further comprising:
applying a sealer to a rock side of the rock
laminate.

10 14. The method of Claim 1, wherein the rock is a
metamorphic rock.

15. The method of Claim 1, wherein the rock is a
sedimentary rock.

15 16. The method of Claim 1, wherein the rock is selected
from the group consisting of shale, limestone,
sandstone, mudstone, slate, quartzite, phyllite,
mica schist, chlorite schist, gneiss, talc schist,
glaucophane schist, prasinite, epidote amphibolite,
20 amphibolite, embrechite, agmatite, calc schist and
mylonite.

17. The method of Claim 1, wherein the rock provided is
in situ.

25 18. A rock laminate produced according to the method of
Claim 1.

19. A rock laminate comprising:

a layer of rock, wherein

the layer of rock has a surface,

the layer of rock has a plurality of pores

5 defined by small openings in the surface
of the rock, the plurality of pores
operable to receive a fluid; and

a flexible layer, wherein

10 the flexible layer is positioned above at least
a portion of the surface of the layer of
rock and in at least a portion of the
plurality of pores of the layer of rock,
and

15 the portion of the flexible layer positioned in
at least a portion of the plurality of
pores of the layer of rock is received by
the plurality of pores as a fluid..

20 20. The rock laminate of Claim 19, wherein the layer of
rock has a thickness that is 4 mm or less.

21. The rock laminate of Claim 20, wherein the layer of
rock has a thickness that is 2 mm or less.

25 22. The rock laminate of Claim 19, wherein the flexible
layer is made of an organic polymer.

30 23. The rock laminate of Claim 19, wherein the flexible
layer includes an additive, operable to enhance the
characteristics of the flexible layer.

24. The rock laminate of Claim 19, wherein a rock side of the rock laminate includes a sealant.

25. The rock laminate of Claim 19, wherein the layer of rock is delaminated from a rock via an initial bonding of the flexible layer to a surface of the rock, the delamination of the flexible layer along with the surface of the rock forms the rock laminate.

26. A method for producing a rock slab having a desired thickness, the method comprising:
providing a rock having an exposed surface and an initial thickness;
applying a polymer to at least a portion of the exposed surface of the rock such that a portion of the exposed surface of the rock is bonded to the polymer; and
lifting a portion of the polymer, along with the corresponding bonded portion of the exposed surface, away from the rock to produce the rock slab with the desired thickness, the desired thickness being less than the initial thickness.

27. The method of Claim 26, wherein applying the polymer and lifting the portion of the polymer is repeated a plurality of times to produce the rock slab with the desired thickness.

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PATENT APPLICATION

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28. The method of Claim 26, wherein the initial thickness of the rock is in the range of 1/2 to 2 inches, and the desired thickness of the rock slab is in the range of 1/8 to 3/8 inch.

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29. The method of Claim 26, further comprising:
bonding a substrate to the rock slab to form a composite.

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